# Navy Ergonomics Program

Technical Support Services
by Naval Facilities Engineering Command

# Ergonomic Interventions for Child Development Centers

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# Outline

- Review ergonomic stressors found in CDCs
- Explore interventions or techniques for reducing the risk of injury
- Share interventions successfully implement at DoN worksites

# Ergonomic Risk Factors Found in CDCs

- Physical Work Place Factors
  - Force
    - Frequent Lifting
    - Awkward Lifting
    - Heavy Lifting (> 25 lbs)
    - High Hand
  - Postures
    - Awkward
    - Static
  - Compression
  - Vibration
  - Repetition
  - Duration
- Contributing Factors
  - Personal
    - Age, Gender, Physical Fitness, Pre-existing Conditions
  - Work Place
    - Stress

# Tasks: Caregivers Lift & Carry Children

- **Hazards**: Frequent, awkward lifting

NWS Charleston

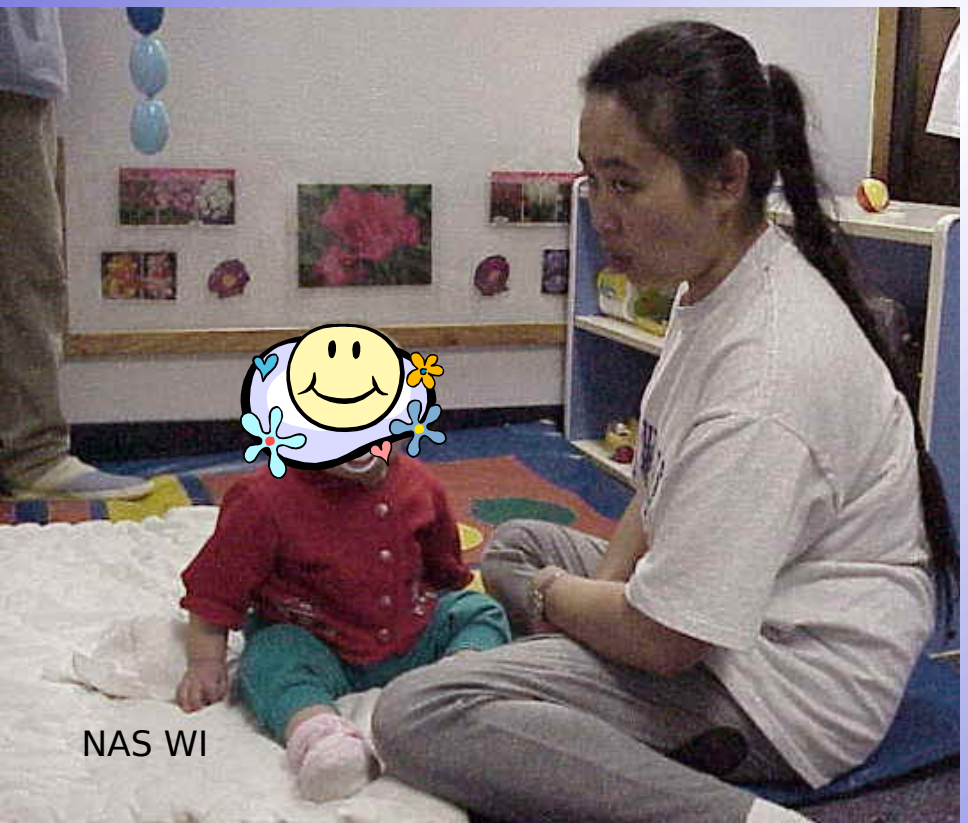
# Task: Caregivers Lift Children onto Changing Table

**Intervention:** Changing table with stairs

NWS Charleston

# Task: Caregivers Interact with Children on Their Level

- **Hazards**: Caregivers bend, stoop and sit on hard surfaces causing contact stress, hyper-flexion of knees, & poor posture



# Task: Caregivers Interact with Children on Their Level

- **Hazards**: Poor posture, hyper-flexion of knees

# Task: Caregivers Sit in Child-sized Chair

- **Interventions:** Adult-size seat with child-sized legs, stackable chairs, padded floor furniture

# Task: Caregivers Bend, Stoop and Crawl on Hard Surface

- **Interventions:** alternative flooring surface, knee pads

# Task: Caregivers Bend and Reach to Lift Children & Supplies

- **Hazards**: Awkward and frequent lifting

NAS WI

NWS Charleston

# Task: Caregivers Bend and Reach to Lift Children & Supplies

- **Interventions:** Training in proper lifting techniques, stretch n’ flex programs, adult size work

# Task: Caregivers Interact with Children on Their Level

- **Hazards**: Awkward postures

# Task: Caregivers Bend Forward to Interact with Children

- **Interventions:** U-shaped or banana

Adult-size seat with child-sized legs, stackable chairs

Pentagon City WA DC

# Other Issues

- Challenge: Slippery surfaces near sinks and drinking fountains
- Solutions: High COF flooring, anti-fatigue mat

- Challenge: Adults bending to use child sinks
- Solutions: Two sinks, foot control with two spouts

- Challenge: Laundry services
- Solutions: Spring-bottom carts, training

- Challenge: Food services; Playground

# Conclusion

- DoD CDCs face many formidable challenges such as a high level of workplace musculoskeletal disorder risks and employee turnover
- Each individual intervention may not be effective by itself but the combination of interventions should be successful at reducing injuries and improving staff retention
- Management commitment, training, and employee involvement are also important components of a successful Ergonomics program